

**DRAFT OF PROPOSED WIND PBR**

**WITH CONSENSUS-BASED RECOMMENDATIONS**

**FROM OFFSHORE/COASTAL WIND RAP INSERTED in BOXES**

Explanatory Comments from RAP Leader Provided in Footnotes

**CHANGES IN RESPONSE TO PUBLIC COMMENT in TRACK CHANGES**

CHAPTER 40

SMALL RENEWABLE ENERGY PROJECTS (WIND) PERMIT BY RULE

Part I

Definitions and Applicability

**9VAC15-40-10. Definitions.**

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"Applicant" means the owner or operator who submits an application to the department for a permit by rule pursuant to this chapter.

"Coastal Avian Protection Zones" (or "CAPZ") means the areas designated on the map of "Coastal Avian Protection Zones" generated on the department's Coastal GEMS geospatial data system (9VAC15-40-120 B 1).<sup>1</sup>

<sup>1</sup> The original Wind RAP recommended by consensus that the desktop analysis for coastal avian resources consist of a search of certain databases found on DEQ/CZM's Coastal GEMS, if the proposed project would be located in the "coastal zone," with "coastal zone" being defined in the section above. The original RAP also acknowledged that it could not reach consensus on the issue of field studies for coastal avian resources within the time deadlines for development of the proposal – field studies that would be required if results of the desktop survey so indicated. Consideration of the field study issue was deferred for consideration by the Offshore/Coastal Wind RAP ("Offshore RAP"). The Offshore RAP's recommendations – set forth in this draft –

"Coastal zone" means the jurisdictions of Tidewater Virginia, as follows: the counties of Accomack, Arlington, Caroline, Charles City, Chesterfield, Essex, Fairfax, Gloucester, Hanover, Henrico, Isle of Wight, James City, King George, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northampton, Northumberland, Prince George, Prince William, Richmond, Spotsylvania, Stafford, Surry, Westmoreland, and York; and the cities of Alexandria, Chesapeake, Colonial Heights, Fairfax, Falls Church, Fredericksburg, Hampton, Hopewell, Newport News, Norfolk, Petersburg, Poquoson, Portsmouth, Richmond, Suffolk, Virginia Beach, and Williamsburg.

"Department" means the Department of Environmental Quality, its director, or the director's designee;

"DCR" means the Department of Conservation and Recreation

"DGIF" means the Department of Game and Inland Fisheries

"Disturbance zone" means the area within the site directly impacted by construction and operation of the wind energy project, and within 100 feet of the boundary of the directly impacted area.

"Ecological core" means an area of non-fragmented forest, marsh, dune, or beach of ecological importance that is at least 100 acres in size and identified in DCR's Natural Landscape Assessment web-based application (9VAC15-40-120 B 2).

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include substituting a new map for the former reference to Coastal GEMS databases. The new map is called the "Coastal Avian Protection Zones" ("CAPZ") map, and it will be housed on Coastal GEMS as an entirely new data layer. As set forth in subsequent provisions in the Analysis section of this draft, an applicant's utilization of the CAPZ map will constitute both the "desktop" analysis and at least part of the "field study" analysis. Accordingly, the Offshore RAP recommends that previous references to Coastal GEMS data layers and the definition of "coastal zone" be stricken and replaced with the Offshore RAP's suggested CAPZ map and related Analysis procedures.

"Historic Resource" means any prehistoric or historic district, site, building, structure, object, or cultural landscape which is included or meets the criteria necessary for inclusion in the Virginia Landmarks Register pursuant to the authorities of § 10.1-2205 of the Code of Virginia and in accordance with 17VAC5-30-40 through 17VAC5-30-70.

"Important Bird Areas" means the designation of discrete sites by the National Audubon Society as having local, regional, continental or global importance for birds because they support significant numbers of one or more high priority avian species (e.g., T&E, SGCN) during the breeding, wintering, and(or) migration seasons.

[Language suggested by Offshore/Coastal RAP for DEQ Guidance: To qualify as an IBA, sites must support one or more the following categories of birds: species of conservation concern (e.g. threatened and endangered species); restricted-ranges species (species that are vulnerable because they are not widely distributed); species that are vulnerable because their populations are concentrated in one general habitat type or biome; and species, or groups of similar species (such as waterfowl or shorebirds), that are vulnerable because they occur at high densities due to their congregatory behavior.]

"Interconnection point" means the point or points where the wind energy project connects to a project substation for transmission to the electrical grid.

"Invasive plant species" means non-native plant species that cause, or are likely to cause, economic or ecological harm or harm to human health as established by Presidential Executive Order 13112 (64 FR 6183, February 3, 1999), and contained on DCR's Invasive Alien Plant Species of Virginia (9VAC15-40-120 A 3).

"Migratory corridors" means major travel routes used by significant numbers of birds during biannual migrations between breeding and wintering grounds.

60 "Migratory staging areas" means those sites along migratory corridors where  
61 significant numbers of birds stop to feed and rest during biannual migrations between  
62 breeding and wintering grounds that are essential to successful migration.

63 "Natural heritage resource" means the habitat of rare, threatened, or endangered  
64 plant and animal species, rare or state significant natural communities or geologic sites,  
65 and similar features of scientific interest benefiting the welfare of the citizens of the  
66 Commonwealth.

67 "Nearshore waters" means all tidal waters within the Commonwealth of Virginia, and  
68 seaward of the mean low-water shoreline to three (3) nautical miles offshore in the  
69 Atlantic Ocean.<sup>2</sup>

70 "Operator" means the person responsible for the overall operation and management  
71 of a wind energy project.

72 "Other avian mitigation factors" means Important Bird Areas, migratory corridors,  
73 migratory staging areas and wintering areas within the Coastal Avian Protection Zones.<sup>3</sup>

74 "Owner" means the person who owns all or a portion of a wind energy project.

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<sup>2</sup> This definition of "nearshore waters" was developed by the Offshore RAP specifically for use in this draft. Note: use of the term "offshore" was abandoned because it is understood by so many people to mean "federal waters," where the state has no jurisdiction. The term "nearshore waters" is intended to refer to relevant state waters.

<sup>3</sup> The term "other avian mitigation factors" refers to four specific types of key avian areas within the CAPZ. Each of these four types of areas is separately defined in this section. The Offshore RAP agreed that both specific avian species and these key avian areas should be analyzed, and, based on the results of the analysis, the department should decide whether significant adverse impacts to these resources are likely and mitigation should thus be required. Both the original Wind RAP and the Offshore RAP were mindful of legal advice that there is a difference between "wildlife" and "habitat." The department has statutory authority to require mitigation for "wildlife." The Offshore RAP wanted to clarify that these four avian areas (i.e., "other avian mitigation factors") are not simply habitat; they are so designated because relevant avian species are known to exist within them.

75 "Permit by rule" means provisions of the regulations stating that a project or activity  
76 is deemed to have a permit if it meets the requirements of the provision.

77 "Person" means any individual, partnership, firm, association, joint venture, public or  
78 private corporation, trust, estate, commission, board, public or private institution, utility,  
79 cooperative, county, city, town, or other political subdivision of the Commonwealth, any  
80 interstate body, or any other legal entity.

81 "Phase of a project" means one continuous period of construction, startup, and  
82 testing activity of the wind energy project. A phase is deemed complete when 90  
83 calendar days have elapsed since the last previous wind turbine has been placed in  
84 service, except when a delay has been caused by a significant force majeure event, in  
85 which case a phase is deemed complete when 180 calendar days have elapsed since  
86 the last previous wind turbine has been placed in service.

87 "Post-construction" means any time after the last turbine on the wind energy project  
88 or phase of that project has been placed in service.

89 "Pre-construction" means any time prior to commencing land-clearing operations  
90 necessary for the installation of energy-generating structures at the small wind energy  
91 project.

92 "Rated capacity" means the maximum capacity of a wind energy project based on  
93 the sum total of each turbine's nameplate capacity.

94 "SGCN" or "species of greatest conservation need" means any vertebrate species so  
95 designated by DGIF as Tier 1 or Tier 2 in the Virginia Wildlife Action Plan (9VAC15-40-  
96 120 A 6).

"Site" means the area containing a wind energy project that is under common ownership or operating control. Electrical infrastructure and other appurtenant structures up to the interconnection point shall be considered to be within the site.

"Small renewable energy project" means (i) an electrical generation facility with a rated capacity not exceeding 100 megawatts that generates electricity only from sunlight, wind, falling water, wave motion, tides, or geothermal power, or (ii) an electrical generation facility with a rated capacity not exceeding 20 megawatts that generates electricity only from biomass, energy from waste, or municipal solid waste.

"Small wind energy project" or "wind energy project" or "project" ~~ITNCI~~ (i) means a small renewable energy project that (i) generates electricity from wind, whose main purpose is to supply electricity, consisting of one or more wind turbines and other accessory structures and buildings, including substations, post-construction meteorological towers, electrical infrastructure, and other appurtenant structures and facilities within the boundaries of the site; and (ii) is designed for, or capable of, operation at a rated capacity equal to or less than 100 megawatts. Two or more wind energy projects otherwise spatially separated but under common ownership or operational control, which are connected to the electrical grid under a single interconnection agreement, shall be considered a single wind energy project. Nothing in this definition shall imply that a permit by rule is required for the construction of meteorological towers to determine the appropriateness of a site for the development of a wind energy project.

<p>"State owned submerged lands" means lands which lie seaward of the mean low water mark in tidal waters or which have an elevation below the ordinary mean high</p>
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water elevation in nontidal areas that are considered property of the Commonwealth pursuant to § 28.2-1200 of the Code of Virginia.<sup>4</sup>

"T&E" or "state threatened or endangered species" or "state-listed species" means any wildlife species designated as a Virginia endangered or threatened species by DGIF pursuant to the §29.1-563-570 of the Code of Virginia and 4VAC15-20-130.

"VLR" means the Virginia Landmarks Register (9VAC15-40-120 A 1).

"VLR-eligible" means those historic resources that meet the criteria necessary for inclusion on the VLR pursuant to 17VAC5-30-40 through 17VAC5-30-70 but are not listed in VLR.

"VLR-listed" means those historic resources that have been listed in the VLR in accordance with the criteria of 17VAC5-30-40 through 17VAC5-30-70.

"VMRC" means the Virginia Marine Resources Commission.

"Wildlife" means wild animals; except, however, that T&E insect species shall only be addressed as part of natural heritage resources, and shall not be considered T&E wildlife.

"Wintering areas" means those sites where a significant portion of the rangewide population of one or more avian species overwinter annually.

#### **9VAC15-40-20. Authority and applicability.**

This regulation is issued under authority of Article 5 (§ 10.1-1197.5 et seq.) of Chapter 11.1 of Title 10.1 of the Code of Virginia. The regulation contains requirements for wind-powered electric generation projects consisting of wind turbines and associated

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<sup>4</sup> The definition of "state owned submerged lands" is taken from existing VMRC regulations/guidance.

141 facilities with a single interconnection to the electrical grid that are designed for, or  
142 capable of, operation at a rated capacity equal to or less than 100 megawatts. The  
143 department has determined that a permit by rule is required for small wind energy  
144 projects with a rated capacity equal to or greater than 5 megawatts and this regulation  
145 contains the permit by rule provisions for these projects in Part II (9VAC15-40-30 et  
146 seq.) of this chapter. The department has also determined that a permit by rule is not  
147 required for small wind energy projects with a rated capacity ~~less than~~ 5 megawatts  
148 ~~and less~~, and this regulation contains notification ~~and other~~ provisions for these projects  
149 in Part III (9VAC15-40-130) of this chapter.

## 150 Part II

### 151 Permit by Rule Provisions

#### 152 **9VAC15-40-30. Application for permit by rule for wind energy projects.**

153 A. The owner or operator of a small wind energy project with a rated capacity ~~equal~~  
154 ~~to or~~ greater than 5 megawatts shall submit a complete application to the department, in  
155 which he satisfactorily accomplishes all of the following:

156 1. In accordance with § 10.1-1197.6 B 1 of the Code of Virginia, ~~and as early in~~  
157 ~~the project development process as practicable~~, furnishes to the department a  
158 notice of intent, to be published in the Virginia Register, that he intends to submit  
159 the necessary documentation for a permit by rule for a small renewable energy  
160 project;

161 2. In accordance with § 10.1-1197.6 B 2 of the Code of Virginia, furnishes to the  
162 department a certification by the governing body of the locality or localities



163 wherein the small renewable energy project will be located that the project  
164 complies with all applicable land use ordinances.<sup>5</sup>

165 3. In accordance with § 10.1-1197.6 B 3 of the Code of Virginia, furnishes to the  
166 department copies of all interconnection studies undertaken by the regional  
167 transmission organization or transmission owner, or both, on behalf of the small  
168 renewable energy project;

169 4. In accordance with § 10.1-1197.6 B 4 of the Code of Virginia, furnishes to the  
170 department a copy of the final interconnection agreement between the small  
171 renewable energy project and the regional transmission organization or  
172 transmission owner indicating that the connection of the small renewable energy  
173 project will not cause a reliability problem for the system. If the final agreement is  
174 not available, the most recent interconnection study shall be sufficient for the  
175 purposes of this section. When a final interconnection agreement is complete, it  
176 shall be provided to the department. The department shall forward a copy of the  
177 agreement or study to the State Corporation Commission;

178 5. In accordance with § 10.1-1197.6 B 5 of the Code of Virginia, furnishes to the  
179 department a certification signed by a professional engineer licensed in Virginia  
180 that the maximum generation capacity of the small wind energy project, as  
181 designed, does not exceed 100 megawatts;

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<sup>5</sup> The question arose of which authority or authorities would certify the applicant's compliance with land use requirements when the project will be located in nearshore waters. The issue was discussed at length by DEQ staff with its OAG counsel, and by the Offshore RAP. A dispositive answer to this legal question is not currently available, and it is not within DEQ's authority to determine the answer. Accordingly, no provision could be proposed that would tell an applicant, with certainty, how he should comply with the statutory requirement for "local government certification" when the proposed project will be located in nearshore waters. The consensus recommendation of the RAP was to leave this provision as it is currently proposed in the original Wind PBR. DEQ plans to explore appropriate ways in which the issue can be resolved ~~is seeking an Opinion of the Attorney General to help clarify this issue.~~

182 6. In accordance with § 10.1-1197.6 B 6 of the Code of Virginia, furnishes to the  
183 department an analysis of potential environmental impacts of the small  
184 renewable energy project's operations on attainment of national ambient air  
185 quality standards;

186 7. In accordance with § 10.1-1197.6 B 7 of the Code of Virginia, furnishes to the  
187 department, where relevant, an analysis of the beneficial and adverse impacts of  
188 the proposed project on natural resources. The owner or operator shall perform  
189 the analyses prescribed in 9VAC15-40-40. For wildlife, that analysis shall be  
190 based on information on the presence, activity, and migratory behavior of wildlife  
191 to be collected at the site for a period of time dictated by the site conditions and  
192 biology of the wildlife being studied, not exceeding 12 months;

193 8. In accordance with § 10.1-1197.6 B 8 of the Code of Virginia, furnishes to the  
194 department a mitigation plan pursuant to 9VAC15-4060 that details reasonable  
195 actions to be taken by the owner or operator to avoid, minimize, or otherwise  
196 mitigate such impacts, and to measure the efficacy of those actions; provided,  
197 however, that the provisions of 9VAC15-40-30 A 8 shall only be required if the  
198 department determines, pursuant to 9VAC15-40-50, that the information  
199 collected pursuant to § 10.1-1197.6 B 7 of the Code of Virginia and 9VAC15-40-  
200 40 indicates that significant adverse impacts to wildlife or historic resources are  
201 likely. The mitigation plan shall be an addendum to the operating plan of the wind  
202 energy project, and the owner or operator shall implement the mitigation plan as  
203 deemed complete and adequate by the department. The mitigation plan shall be  
204 an enforceable part of the permit by rule;

205 9. In accordance with § 10.1-1197.6 B 9 of the Code of Virginia, furnishes to the  
206 department a certification signed by a professional engineer licensed in Virginia  
207 that the project is designed in accordance with 9VAC15-40-80.

208 10. In accordance with § 10.1-1197.6 B 10 of the Code of Virginia, furnishes to  
209 the department an operating plan that includes a description of how the project  
210 will be operated in compliance with its mitigation plan, if such a mitigation plan is  
211 required pursuant to 9VAC15-40-50.

212 11. In accordance with § 10.1-1197.6 B 11 of the Code of Virginia, furnishes to  
213 the department a detailed site plan meeting the requirements of 9VAC15-40-70;

214 12. In accordance with § 10.1-1197.6 B 12 of the Code of Virginia, furnishes to  
215 the department a certification signed by the applicant that the small wind energy  
216 project has applied for or obtained all necessary environmental permits;

217 13. Prior to authorization of the project and in accordance with § 10.1-1197.6 B 13  
218 and § 10.1-1197.6 B 14 of the Code of Virginia, conducts a 30-day public review and  
219 comment period and holds a public meeting pursuant to 9VAC15-40-90. The public  
220 meeting shall be held in the locality or, if the project is located in more than one  
221 locality, in a place proximate to the location of the proposed project; however, for

222 projects located in nearshore waters or on state owned submerged lands, the  
223 meeting shall be held in the locality that is the closest distance from the approximate  
224 center of the project's disturbance zone.<sup>6</sup>

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<sup>6</sup> The Offshore RAP discussed several options to determine where the applicant should hold the public meeting when the project is located in the water. The RAP recommended the simple approach of holding the public meeting in the closest on-land locality, with the caveat (in DEQ Guidance) that all localities where the project is likely to have impacts should be notified about

Language Suggested by Offshore/Coastal RAP for DEQ Guidance: *For projects located in nearshore waters or on state owned submerged lands, the applicant should provide the notice prescribed in 9VAC15-40-90 A to the local government in each of the localities where significant natural resource impacts from the project are likely to occur.*

Following the public meeting and public comment period, the applicant shall prepare a report summarizing the issues raised by the public and include any written comments received and the applicant's response to those comments. The report shall be provided to the department as part of this application; and

14. In accordance with 9VAC15-40-110, furnishes to the department the appropriate fee.

B. Within 90 days of receiving all of the required documents and fees listed in subsection A of this section, the department shall determine, after consultation with other agencies in the Secretariat of Natural Resources, whether the application is complete and whether it adequately meets the requirements of this chapter, pursuant to § 10.1-1197.7 A of the Code of Virginia.

1. If the department determines that the application meets the requirements of this chapter, then the department shall notify the applicant in writing that he is authorized to construct and operate a small wind energy project pursuant to this chapter.

2. If the department determines that the application does not meet the requirements of this chapter, then the department shall notify the applicant in writing and specify the deficiencies.

3. If the applicant chooses to correct deficiencies in a previously submitted application, the department shall follow the procedures of this subsection and notify the applicant whether the revised application meets the requirements of this chapter within 60 days of receiving the revised application.

4. Any case decision by the department pursuant to this subsection shall be subject to the process and appeal provisions of the Administrative Process Act (§ 2.2-4000 et seq. of the Code of Virginia).

**9VAC15-40-40. Analysis of the beneficial and adverse impacts on natural resources.**

A. Analyses of wildlife. To fulfill the requirements of § 10.1-1197.6 B 7 of the Code of Virginia, the applicant shall conduct pre-construction wildlife analyses. The analyses of wildlife shall include the following:

1. Desktop surveys and maps. The applicant shall obtain a wildlife report and map generated from DGIF's Virginia Fish and Wildlife Information Service or Wildlife Environmental Review Map Service web-based application (9VAC15-40-120 B 3) of the following: (i) ~~known~~ wildlife species and habitats ~~known to occur~~ on the site ~~or~~ and within two (2) miles of the boundary of the site; (ii) ~~known~~ bat hibernacula ~~known to occur~~ on the site ~~or~~ and within five (5) miles of the boundary of the site; (iii) ~~known~~ maternity and bachelor bat colonies ~~known to occur~~ on the site ~~or~~ and within twelve (12) miles of the boundary of the site; and (iv) known or

269 potential sea turtle nesting beaches located within one (1) mile of the  
270 disturbance zone.<sup>7</sup>

271 2. Breeding bird surveys. If the desktop analyses prescribed in subdivision 1 of  
272 this subsection indicate the presence of or habitat for a state-listed T&E bird  
273 species or a Tier 1 or Tier 2 bird SGCN within the disturbance zone, then the  
274 applicant shall conduct a breeding bird survey to identify state T&E bird species  
275 and Tier 1 and Tier 2 bird SGCN occurring within the disturbance zone during the  
276 species' annual breeding season.

277 3. Field survey of non-avian resources. If the desktop analyses prescribed in  
278 subdivision 1 of this subsection indicate the presence of or habitat for a Tier 1 or  
279 Tier 2 vertebrate SGCN, other than a bird, within the disturbance zone, then the  
280 applicant shall conduct field surveys of suitable habitats for that species within  
281 the disturbance zone to determine the species' occurrence and relative  
282 distribution within the disturbance zone.

283 4. Raptor migration surveys. The applicant shall conduct one year of raptor  
284 migration surveys, in both the spring and fall seasons, to determine the relative  
285 abundance of migrant raptors moving through the general vicinity of the  
286 disturbance zone.

287 ~~5. Desktop surveys and maps of coastal avian migration corridors. When a~~  
288 ~~proposed wind energy project site will be located in part or in whole within the~~  
289 ~~coastal zone of Virginia, the applicant shall obtain a desktop report and maps~~

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<sup>7</sup> T&E species are addressed in a number of provisions within the proposed wind PBR; however, the Offshore RAP wanted to ensure that protection of sea turtles extends to their nesting on shore. The Offshore RAP recommended provisions to protect sea turtle nesting, both here and in subsequent sections.

~~generated from the department's Coastal GEMS geospatial data system~~  
~~(9VAC15-40-120 B 1) showing essential wildlife habitats, important bird areas,~~  
~~and migratory songbird stopover habitat.~~

5. Map and field studies for avian resources in Coastal Avian Protection Zones.

a. The applicant shall consult the "Coastal Avian Protection Zones" map generated on the department's Coastal GEMS geospatial data system (9VAC15-40-120 B 1) and determine whether the proposed wind energy project site will be located in part or in whole within one or more Coastal Avian Protection Zones.

b. When a proposed wind energy project site will be located in part or in whole within one or more Coastal Avian Protection Zones, then the applicant shall perform avian field studies, or shall rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map, for each zone where the project is located, as follows: <sup>8</sup>

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<sup>8</sup> As stated above, the Offshore RAP recommended adopting the CAPZ map, a map that was created chiefly by scientists from DGIF and the Center for Conservation Biology ("CCB") for use in this proposed regulation relating to projects located in nearshore waters and coastal land areas. Presentations and discussions at Offshore RAP meetings established the critical importance of these geographic areas in our state for avian resources, often at a hemispheric level. Although post-construction studies of impacts of wind turbines in coastal and nearshore settings in the United States are limited, many believe that these impacts could be highly significant. The CAPZ map reflects the conclusion, based on existing scientific data, that significant adverse impacts to avian resources in many CAPZ are likely if a wind project is built. Use of the CAPZ map – as outlined in this and subsequent sections – allows the applicant either to do his own field studies or to rely on the existing body of scientific analysis for a number of zones. That is, when a proposed project is to be located within the specified zones, the applicant may opt to rely on the CAPZ map, stipulate that significant adverse impacts to avian resources are likely, and go directly to mitigation. By contrast, in zones where existing scientific analysis is insufficient to support an "across-the-board" conclusion of significant adverse impact, or where field studies could inform mitigation choices, the suggested provisions require that these field studies be done. The CAPZ map is a static resource, unanimously accepted by the Offshore RAP to become part of this proposed regulation. The CAPZ map can only be changed by regulatory action. (The Governor's Executive Order requires that all regulations be reconsidered every four years, but can be reopened sooner if the department receives a request accompanied

a.i. Zone 1: Nearshore waters extending 1 – 4.83 km (0.62 – 3 mi) from Virginia’s ocean-facing shoreline, excluding the mouth of the Chesapeake Bay. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (migratory Piping Plovers, Wilson’s Plovers, Peregrine Falcons, Gull-billed Terns and Roseate Terns), hemispherically important migratory corridor for shorebirds, seabirds and waterfowl, and hemispherically important migratory staging area and wintering area for seabirds and waterfowl. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map.

b.ii. Zone 2: Nearshore waters that extend from Virginia’s ocean-facing shoreline out to 1 km (0.62 mi), excluding the mouth of the Chesapeake Bay. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (migratory and breeding Piping Plovers, Wilson’s Plovers, Peregrine Falcons and Gull-billed Terns, and migratory Roseate Terns), and hemispherically important migratory corridor, migratory staging area and wintering area for shorebirds, seabirds and waterfowl. The applicant shall either perform avian field studies regarding the actual or likely occurrence of

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by 25 signatures. The Offshore RAP concluded that the CAPZ is unlikely to change within four years; most have not changed significantly in hundreds of years, or longer.) DGIF and CCB continue to develop a narrative to accompany the CAPZ. DEQ anticipates that this narrative will be a DEQ Guidance document, which will also be posted on Coastal GEMS. The narrative will reiterate the geographic areas encompassed by each zone, and reiterate the relevant avian resources in each zone, essentially repeating and perhaps clarifying the information stated in the proposed regulation. The narrative will also provide a bibliography of the existing scientific data, research studies, and other existing scientific analyses that support the conclusion that wind projects in these zones are likely to cause significant adverse impacts, as provided by DGIF and CCB. The narrative may also provide additional relevant information, at DEQ’s discretion. Since the narrative will be Guidance, not regulation, DEQ may receive new information as it becomes available and update the Guidance.



these resources, or rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map .

~~e.iii.~~ Zone 3: Barrier island/seaside lagoon system, including a 100 m (328 ft) offshore buffer. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding and migratory Piping Plovers, Wilson's Plovers, Gull-billed Terns, Peregrine Falcons and Bald Eagles, and migratory Roseate Terns), the designation as an Important Bird Area, and hemispherically important migratory staging area and wintering area for shorebirds, seabirds and waterfowl. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map.

~~d.iv.~~ Zone 4: Southern end of the Delmarva Peninsula (mainland only), including a 10 km long (6.21 mi) strip along the western (bayside) fringe of peninsula that extends from Wise Point to (and including) Savage Neck. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (migratory Peregrine Falcons and breeding and migratory Bald Eagles), the designation as an Important Bird Area, and hemispherically important migratory staging area for passerines and other landbirds. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map.

~~e.v.~~ Zone 5: Delmarva Peninsula, excluding zones 3 and 4. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles) and regionally to hemispherically important fall

migratory staging area for landbirds. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map.

f.vi. Zone 6: Southern end and mouth of the Chesapeake Bay, including the waters off of the western shore of the Delmarva Peninsula that extend from Wise Point north to the mouth of Craddock Creek. In this zone, the relevant avian species and other avian mitigation factors are: migratory staging area and wintering area for seabirds and waterfowl that may be of hemispheric importance. The applicant shall conduct aerial transect surveys for waterfowl and seabirds during the fall migration, spring migration and wintering seasons to determine the distribution, density and relative abundance of these species within this zone throughout the non-breeding season.

g.vii. Zone 7: Lower portions of the James, York and Rappahannock Rivers and small tributaries along the south side of the lower Potomac River. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles), regionally important fall migratory staging areas and wintering areas for waterfowl, and spring migratory staging areas of unknown significance. The applicant shall conduct aerial transect surveys for waterfowl during the spring migration season to determine the distribution, density and relative abundance of these species within this zone during the spring season. The applicant shall either perform avian field studies regarding the actual or likely occurrences of breeding Bald Eagles and waterfowl during the fall and winter seasons, or rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map.

i.viii. Zone 8: Western portions of the Chesapeake Bay. In this zone, the relevant avian species and other avian mitigation factors are: migratory staging area and wintering area for seabirds and waterfowl of unknown significance. The applicant shall conduct aerial transect surveys for waterfowl and seabirds in the fall migration, spring migration and wintering seasons to determine the distribution, density and relative abundance of these species within this zone throughout the non-breeding season.

i.ix. Zone 9: Virginia's northeast sector of the Chesapeake Bay, including all nearshore waters, marshes and islands within Tangier and Pocomoke Sounds and all islands and marshes located along the western fringe of the Delmarva Peninsula from Craddock Creek north to the Virginia/Maryland border. This zone is recognized as a migratory staging area and wintering area for seabirds and waterfowl of unknown significance. The applicant shall conduct aerial transect surveys for waterfowl and seabirds during the fall migration, spring migration and wintering seasons to determine the distribution, density and relative abundance of these species within this zone throughout the non-breeding season. In this zone, additional relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles and Peregrine Falcons) and the designation as an Important Bird Area. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these additional resources, or rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map.

i.x. Zone 10: Upper reaches of the James, Rappahannock and Potomac rivers. In this zone, the relevant avian species and other avian mitigation

factors are: T&E species (breeding Bald Eagles and continentally important Bald Eagle concentration areas), the designation as Important Bird Areas, and locally to continentally important waterfowl wintering areas. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map.

k.xi. Zone 11: Lower reaches of the Mattaponi and Pamunkey tributaries. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles) and the designation as an Important Bird Area. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map.

l.xii. Zone 12: Outer fringes of the lower, middle and northern peninsulas. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles). The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map.

n.xiii. Zone 13: Interior portions of the lower, middle and northern peninsulas. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles, for which little information currently exists in this zone). The applicant shall perform ground surveys for breeding Bald Eagles to determine distribution and abundance of Bald Eagle nests within the disturbance zone and within .25 mile of the perimeter of the disturbance zone.

~~h.xiv.~~ Zone 14: Back Bay and surrounding private lands. In this zone, the relevant avian species and other avian mitigation factors are: T&E species (breeding Bald Eagles), the designation as Important Bird Area, and locally to continentally important migratory staging area and wintering area for waterfowl. The applicant shall either perform avian field studies regarding the actual or likely occurrence of these resources, or rely on existing scientific analysis as reflected on the Coastal Avian Protection Zones map.

6. Bat acoustic surveys. The applicant shall conduct bat acoustic surveys to determine the presence of and level of bat activity and use within the disturbance zone.

7. Mist-netting or harp-trapping surveys. If the applicant identifies potential for T&E bat species to occur within the disturbance zone, the applicant shall conduct a season-appropriate mist-netting survey or harp-trapping survey or both.

8. Wildlife report. The applicant shall provide to the department a report summarizing the relevant findings of the desktop and field surveys conducted pursuant to subdivisions 1 through 7 of this subsection, along with all data and supporting documents. The applicant shall assess and describe the expected beneficial and adverse impacts, if any, of the proposed project on wildlife resources identified in subdivisions 1 through 7 of this subsection.

B. Analyses of historic resources. To fulfill the requirements of § 10.1-1197.6 B 7 of the Code of Virginia, the applicant shall also conduct a pre-construction historic resources analysis. The analysis shall be conducted by a qualified professional meeting the professional qualification standards of the Secretary of the Interior's Standards for

445 Archeology and Historic Preservation (9VAC15-40-120 A 2) in the appropriate discipline.

446 The analysis shall include each of the following:

447 1. Compilation of known historic resources. The applicant shall gather  
448 information on known historic resources within the disturbance zone and within  
449 five (5) miles of the disturbance zone boundary and present this information on  
450 the context map referenced in 9VAC15-40-70 B, or as an overlay to this context  
451 map, as well as in tabular format.

452 2. Architectural survey. The applicant shall conduct a field survey of all  
453 architectural resources, including cultural landscapes, 50 years of age or older  
454 within the disturbance zone and within 1.5 miles of the disturbance zone  
455 boundary and evaluate the eligibility of any identified resource for listing in the  
456 VLR; however, for wind energy projects located in nearshore waters, this field

457 study shall include all architectural resources 50 years of age or older within five

458 (5) miles of the disturbance zone boundary, but shall not extend more than 1.5

459 miles inland from the mean low water mark.<sup>9</sup>

460 3. Archaeological survey. The applicant shall conduct an archaeological field  
461 survey of the disturbance zone and evaluate the eligibility of any identified  
462 archaeological site for listing in the VLR; however, the requirements of this

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<sup>9</sup> This provision is designed to reflect DHR's comment that the viewshed impacts to historic resources are expected to be greater for projects located in the water than they are for most projects located on land. It was suggested that there are generally very few emergent features in the water, so wind projects will probably be visible from shore for a long, virtually uninterrupted distance. The Offshore RAP accepted DHR's suggestion in this regard, with the proviso that, once the historic-resource analyses for projects in the water extend into onshore areas, the required area to be surveyed and analyzed should be no greater than it is for projects that are located on land near the shoreline. Hence, the limitation of 1.5 miles inland is provided to maintain consistency of requirements between onshore and nearshore.

463 paragraph shall not apply to any portion of the disturbance zone located on  
464 state-owned submerged lands that are subject to VMRC permitting pursuant to  
465 Title 28.2 of the Code of Virginia.<sup>10</sup>

466 4. Historic resources report. The applicant shall provide to the department a  
467 report presenting the findings of the studies and analyses conducted pursuant to  
468 subdivisions 1 through 3 of this subsection, along with all data and supporting  
469 documents. The applicant shall assess and describe the expected beneficial and  
470 adverse impacts, if any, of the proposed project on historic resources identified in  
471 subdivisions 1, 2, and 3 of this subsection.

472 C. Analyses of other natural resources. To fulfill the requirements of § 10.1-1197.6 B  
473 7 of the Code of Virginia, the applicant shall also conduct pre-construction analyses of  
474 the impact of the proposed project on other natural resources, which have not been  
475 addressed pursuant to subsections A or B of this section, and as are specified in  
476 subdivisions 1 and 2 of this subsection. The analyses shall include:

477 1. Natural heritage resources. An analysis of the impact of the project on natural  
478 heritage resources, which shall include the following:

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<sup>10</sup> As discussed in the cover memo to this submission of public comment from the Offshore RAP, there exists certain overlap between DEQ's PBR authority and VMRC's permitting authority in nearshore waters. Both programs are regulatory, not advisory. To avoid requiring an applicant to meet the same or similar requirements for two separate agencies, the heads of DEQ and VMRC – based in part on informal legal advice from the OAG – decided which issues the PBR should address, and which will continue to be addressed by VMRC. It is understood that no project can proceed in nearshore waters without a VMRC permit, and the wildlife and historic resource issues omitted from the PBR will always be addressed by VMRC permits as a matter of law. The provision above is an example of the Offshore RAP's implementation of the DEQ and VMRC directors' decision.

479 a. A desktop survey of natural heritage resources within the site and within  
480 two (2) miles of the boundary of the site.

481 b. Field surveys within the disturbance zone mapping: (i) the ecological  
482 community groups as classified in accordance with DCR's The Natural  
483 Communities of Virginia, Classification of Ecological Community Groups  
484 (9VAC15-40-120 A 4); (ii) natural heritage resources to include species and  
485 community identification, location, age, size, spatial distribution, and evidence  
486 of reproduction; (iii) caves; (iv) mines; (v) rock outcrops; (vi) cliffs; (vii)  
487 wetlands; and (viii) invasive plant species.

488 2. Scenic resources. An analysis of the impact of the project on scenic  
489 resources, as follows:

490 a. Pursuant to 9VAC15-40-70, for the area within the site and within 5 miles  
491 of the boundary of the site, a viewshed analysis of the impact of the proposed  
492 project on existing federally-designated or state-designated scenic resources,  
493 including national parks, national forest designated scenic areas, state parks,  
494 state natural area preserves, national scenic trails, national or state  
495 designated scenic roads, national or state designated scenic rivers and those  
496 resources identified as potential candidates for such designation in DCR's  
497 Virginia Outdoors Plan (9VAC15-40-120 A 5).

498 b. The applicant shall conduct these analyses and shall show the potential  
499 impact of the proposed project on the viewshed from such identified  
500 resources, where applicable.

501 3. Other natural resources report. The applicant shall provide to the department  
502 a report, including maps, documenting the results of the analyses conducted



503 pursuant to subdivision 1 and 2 of this subsection. The applicant shall assess  
504 and describe the expected beneficial and adverse impacts, if any, of the  
505 proposed project on natural resources identified in subdivisions 1 and 2 of this  
506 subsection.

507 **9VAC15-40-50. Determination of likely significant adverse impacts.**

508 A. The department shall find that significant adverse impacts to wildlife are likely  
509 whenever the wildlife analyses prescribed in 9VAC15-40-40 A document that any of the  
510 following conditions exists:

511 1. Bats have been detected, or a hibernaculum exists, within the disturbance  
512 zone.

513 2. State-listed T&E wildlife are found to occur within the disturbance zone; or the  
514 disturbance zone is located on or within one (1) mile of a known or potential sea  
515 turtle nesting beach.

516 3. Within the Coastal Avian Protection Zones, the applicant's field studies  
517 indicate that significant adverse impacts to avian resources are likely, or the  
518 applicant stipulates that existing scientific analysis, as reflected on the Coastal  
519 Avian Protection Zones map, supports a conclusion that significant adverse  
520 impacts to avian resources are likely.

521 B. The department shall find that significant adverse impacts to historic resources are  
522 likely whenever the historic resources analyses prescribed by 9VAC15-40-40 B indicate  
523 that the proposed project is likely to diminish significantly any aspect of a historic  
524 resource's integrity.

**525 9VAC15-40-60. Mitigation plan.**

526 A. If the department determines that significant adverse impacts to wildlife or historic  
527 resources or both are likely, then the applicant shall prepare a mitigation plan. The  
528 mitigation plan shall include a description of the affected wildlife or historic resources or  
529 both and the impact to be mitigated, a description of actions that will be taken to avoid  
530 the stated impact, and a plan for implementation. If the impact cannot reasonably be  
531 avoided, the plan shall include a description of actions that will be taken to minimize the  
532 stated impact, and a plan for implementation. If neither avoidance nor minimization is  
533 reasonably practicable, the plan shall include a description of other measures that may  
534 be taken to offset the stated impact, and a plan for implementation.

535 B. Mitigation measures for significant adverse impacts to wildlife shall include:

536 1. For state listed T&E wildlife, the applicant shall take all reasonable measures  
537 to avoid significant adverse impacts, or shall demonstrate in the mitigation plan  
538 what significant adverse impacts cannot practicably be avoided, and why  
539 additional proposed actions are reasonable. These additional proposed actions  
540 may include best practices to avoid, minimize, or offset adverse impacts to  
541 resources analyzed pursuant to 9VAC15-40-40 A or 9VAC15-40-40 C 1.

542 2. For proposed projects where the disturbance zone is located on or within one  
543 (1) mile of a known or potential sea turtle nesting beach, the applicant shall take  
544 all reasonable measures to avoid significant adverse impacts, or shall  
545 demonstrate in the mitigation plan what significant adverse impacts cannot  
546 practicably be avoided, and why additional proposed mitigation actions are  
547 reasonable. Mitigation measures shall include the following:

- a. Avoiding construction within likely sea turtle crawl or nesting habitats during the turtle nesting and hatching season (May 20 – October 31). If avoiding construction during this period is not possible, then conducting daily crawl surveys of the disturbance zone (May 20 – August 31) and one (1) mile beyond the northern and southern reaches of the disturbance zone (hereinafter “sea turtle nest survey zone”) between sunrise and 9:00 a.m. by qualified individuals who have the ability to distinguish accurately between nesting and non-nesting emergencies.
- b. If construction is scheduled during the nesting season, then including measures to protect nests and hatchlings found within the sea turtle nest survey zone.
- c. Minimizing nighttime construction during the nesting season, and designing project lighting during the construction and operational phases to minimize impacts on nesting sea turtles and hatchlings.<sup>11</sup>

3. For avian resources within any of the Coastal Avian Protection Zones that are referenced in 9VAC15-40-40 A 5, the applicant shall take all reasonable measures to avoid significant adverse impacts, or shall demonstrate in the mitigation plan what significant adverse impacts cannot practicably be avoided, and why additional proposed mitigation actions are reasonable.

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<sup>11</sup> The Offshore RAP agreed with the above-stated recommendations from DGIF and others concerning appropriate mitigation for likely significant adverse impacts to sea turtle nesting. The RAP believes that these mitigation measures are well-enough established and accepted that they should appear in the regulation, where they become enforceable standards. Contrast this recommendation with the RAP's decision regarding coastal avian mitigation. So far, studies have not proven that operational measures (curtailment, etc.) can significantly reduce avian impacts; the proper means of mitigating for avian impacts is uncertain. Accordingly, the Offshore RAP recommended that specific options for avian mitigation in CAPZ be placed in DEQ Guidance.

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Language suggested by the Offshore/Coastal RAP for DEQ Guidance:

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Mitigation measures may include, but are not limited to:

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a. Micro siting adjustments (adjusting turbine locations within the disturbance zone);

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b. Seasonal restrictions or conditions regarding land clearing, construction, or maintenance activities to protect nesting birds;

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c. Logistical or financial support of scientific research investigating the efficacy and cost-effectiveness of project design, construction or operational mitigation strategies (such as curtailment on a temporal or meteorological basis to coincide with peak bird movement/migration across the disturbance zone) to reduce project impacts on birds and their essential coastal habitats;

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d. A contribution to a fund designated for bird habitat protection and management within the Coastal Avian Protection Zone;<sup>12</sup> or

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e. Any combination of items (a) through (d) of this subsection.

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Additional note for DEQ Guidance: Those zones identified as having international importance to birds should be afforded greater protection in terms of mitigationary actions to avoid, minimize, or offset impacts.

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4. For bats, the mitigation plan shall include measures to curtail operation of

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wind turbines on low wind speed nights when bats are likely to be active within

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the disturbance zone, and to monitor the efficacy of these measures; however,

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<sup>12</sup> These provisions calling for financial contributions by the applicant to research or habitat protection as possible means of mitigating coastal avian impacts were part of the “straw man” provisions suggested by DGIF for the Offshore RAP’s consideration. The Offshore RAP accepted DGIF’s suggestion. DGIF did not offer a suggestion about the size of the contribution in the “straw man.” The RAP attempted, in lengthy discussions, to reach consensus as to how large this financial contribution should be. There were valid reasons why various constituencies might prefer to have this information “up front” in the regulation. Developers need certainty in projecting their costs to help assess financial viability of the proposed project and obtain financing. The natural-resource community wants to ensure that a meaningful contribution will be made, without having to debate the issue whenever a project in CAPZ is proposed. Consensus about the size of these contributions could not be reached by the Offshore RAP. By consensus, the Offshore RAP reaffirmed its acceptance of DGIF’s “straw man” provisions -- provisions which leave the sufficiency of an applicant’s proposed mitigation, including the size of any financial contribution to avian research or habitat protection, to be determined by DEQ, in consultation with DGIF and other agencies in the Secretariat of Natural Resources, as required by the statute. The mitigation options suggested in DGIF’s “straw man” are suggested by the Offshore RAP to appear in DEQ Guidance. The issue of the size of the contribution may be addressed again when DEQ staff drafts this Guidance. DEQ anticipates seeking informal public input in the Guidance-drafting process.

the combined cost of mitigation and post-construction monitoring, in each year after year one (1), shall not exceed 120 hours of curtailment per year per turbine, averaged. ~~[TNC's preference for \$5000 + GDPIPD?]~~ The combined cost of mitigation shall consist of lost revenue from curtailment of wind turbines, including lost production tax credits.

5. Post-construction monitoring shall be designed to achieve the following:

a. Estimate the level of avian and bat fatalities associated with the wind energy project, accounting for scavenger removal and searcher efficiency<sup>13</sup>

however, estimates of avian and bat fatalities shall not be required for areas seaward of the mean low-water shoreline.<sup>13</sup>

b. Investigate the correlation of bat fatalities with project operational protocols, weather-related variables, and the effectiveness of operational adjustments to reduce impacts.

6. Post-construction wildlife mitigation and management shall include the following:

a. Post-construction mitigation. After completing the initial one (1) year of post-construction monitoring, the owner or operator shall submit **the first year's monitoring data and** a revised mitigation plan detailing the ~~consisting of~~ ~~his proposed~~ monitoring and mitigation actions expected to be implemented

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<sup>13</sup> This provision reflects the fact, as explained by scientists on the RAP, that effective means for evaluating bird and bat fatalities over water do not exist and/or are not commercially available at the present time. Measures like carcass searches cannot effectively be performed in the water. The regulation can be amended if and as these tools become available.

for the remainder of the project's operating life. Such mitigation actions shall be designed to address the impacts revealed by the initial year of post-construction monitoring. One (1) year after the revised mitigation plan is submitted, and annually thereafter, the owner or operator shall submit a report consisting of the results of ongoing monitoring, including data and supporting documents, and documentation showing expenditures and lost revenues attributable to curtailment, other mitigation actions, and monitoring.

[TNC, with CCW edits]

b. Amendment of mitigation plan. After three (3) years of post-construction mitigation efforts, the owner or operator of the project may initiate a consultation with the department to propose amendments to the mitigation plan. The owner or operator shall submit any proposed amendments of the mitigation plan to the department. The department may approve the proposed amendments if the department determines that the proposed amendments will avoid or minimize adverse impacts to a demonstrably equal or greater extent as the mitigation measures being implemented at that time. Alternatively, the department may approve the proposed amendments to the mitigation plan if the owner or operator demonstrates that the mitigation measures being implemented at that time are not effectively avoiding or minimizing adverse impacts, ~~and the owner's or operator's proposed amendments are preferable methods to mitigate for ongoing adverse impacts. For example, proposed amendments may include~~ in which case the owner or operator may propose and the department may approve ways of offsetting ongoing adverse impacts, such as funding research or preserving habitats. [TNC]

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638 C. Mitigation measures for significant adverse impacts to historic resources  
639 shall include:

640 1. Significant adverse impacts to VLR-eligible or VLR-listed architectural  
641 resources shall be minimized, to the extent practicable, through design of the  
642 wind energy project or the installation of vegetative or other screening.

643 2. If significant adverse impacts to VLR-eligible or VLR-listed architectural  
644 resources cannot be avoided or minimized such that impacts are no longer  
645 significantly adverse, then the applicant shall develop a reasonable and  
646 proportionate mitigation plan that offsets the significantly adverse impacts and  
647 has a demonstrable public benefit and benefit for the affected or similar resource.

648 3. If any identified VLR-eligible or VLR-listed archaeological site can not be  
649 avoided or minimized to such a degree as to avoid a significant adverse impact,  
650 significant adverse impacts of the project will be mitigated through archaeological  
651 data recovery.

652 **9VAC15-40-70. Site plan and context map requirements.**

653 A. The applicant shall submit a site plan that includes maps showing the physical  
654 features, topography, and land cover of the area within the site, both before and after  
655 construction of the proposed project. ~~[TNC]~~ The site plan shall be submitted at a scale  
656 sufficient to show, and shall include, the following: (i) the boundaries of the site; (ii) the  
657 location, height, and dimensions of all existing and proposed wind turbines, other  
658 structures, fencing and other infrastructure; (iii) the location, grades, and dimensions of  
659 all temporary and permanent on-site and access roads from the nearest county or state  
660 maintained road; ~~(iv) existing topography;~~ and (iv) water bodies, waterways, wetlands,

661 and drainage channels. For any part of a site that is located in nearshore waters, the  
662 site plan shall also include bathymetry; the location and depth of underground cables,  
663 transmission lines and pipelines; navigational channels; and beaches, marshes and  
664 other emergent terrestrial features.

665 B. The applicant shall submit a context map including the area encompassed by the  
666 site and within five (5) miles of the site boundary. The context map shall show state and  
667 federal resource lands and other protected areas, Coastal Avian Protection Zones,  
668 historic resources, state roads, waterways, locality boundaries, forests, open spaces,  
669 and transmission and substation infrastructure. If any part of a site is located in  
670 nearshore waters, the context map shall also include bathymetry; navigational  
671 channels; commercially licensed fixed fishing devices; permitted aquaculture  
672 operations; shellfish leases; public shellfish grounds; artificial reefs; and submerged  
673 aquatic vegetation.

674 **9VAC15-40-80. Small wind energy project design standards.**

675 The design and installation of the small wind energy project shall incorporate any  
676 requirements of the mitigation plan that pertain to design and installation, if a mitigation  
677 plan is required pursuant to 9VAC15-40-50.

678 **9VAC15-40-90. Public participation.** ~~[Cindy & Carol — consider public cmnts re~~  
679 ~~possible revisions of this section]~~

680 A. Before the initiation of any construction at the small wind energy project, the  
681 ~~owner or operator~~applicant shall comply with this section. The owner or operator shall



first ~~[per TNC]~~ publish a notice once a week for two consecutive weeks in a major local newspaper of general circulation informing the public that he intends to construct and operate a project eligible for a permit by rule. No later than the date of newspaper publication of the initial notice, the owner or operator shall submit to the department a copy of this notice along with electronic copies of all documents ~~that the applicant plans to submit [check that previous sections adequately require data and supporting docs]~~ in support of the application. ~~[Cindy & Carol — work on the TIMING of this notice]~~ The notice shall include:

1. A brief description of the proposed project and its location, including the approximate dimensions of the site, approximate number of turbines, and approximate maximum blade-tip height;

2. A statement that the purpose of the public participation is to acquaint the public with the technical aspects of the proposed project and how the standards and the requirements of this chapter will be met, to identify issues of concern, to facilitate communication and to establish a dialogue between the owner or operator and persons who may be affected by the project;

3. Announcement of a 30-day comment period in accordance with subsection ~~DC~~ of this section, and the name, telephone number, address, and email address of the ~~owner's or operator's representative applicant~~ who can be contacted by the interested persons to answer questions or to whom comments shall be sent;  
~~[Carol — cf SELC comments]~~

4. Announcement of the date, time, and place for a public meeting held in accordance with subsection ~~CD~~ of this section; and

5. Location ~~where~~ copies of the documentation to be submitted to the Department in support of the permit by rule application will be available for inspection.

B. The owner or operator shall place a copy of the documentation in a location accessible to the public during business hours for the duration of the 30-day comment period, in the vicinity of the proposed project.

C. The public shall be provided at least 30 days to comment on the technical and the regulatory aspects of the proposal. The comment period shall begin no sooner than 15 days after the applicant initially publishes the notice in the local newspaper.

~~D.~~ D. The ~~owner or operator~~ applicant shall hold a public meeting not earlier than 15 days after the beginning of the 30-day public comment period ~~initial publication of the notice required in subsection A of this section~~ and no later than seven days before the close of the 30-day comment period. ~~[cf SELC emnts]~~ The meeting shall be held in the locality or, if the project is located in more than one locality, in a place proximate to the location of the proposed project; however, for projects located in nearshore waters or on state owned submerged lands, the meeting shall be held in the locality that is the closest distance from the approximate center of the project's disturbance zone.

Language Suggested by Offshore/Coastal RAP for DEQ Guidance: *For projects located in nearshore waters or on state owned submerged lands, the applicant should provide the notice prescribed in 9VAC15-40-90 A to the local government in each of the localities where significant natural resource impacts from the project are likely to occur.*

~~D. The public shall be provided at least 30 days to comment on the technical and the regulatory aspects of the proposal. The comment period shall begin on the date the owner or operator initially publishes the notice in the local newspaper. [cf SELG comments; also decision re timing of initial notice]~~

E. For purposes of this chapter, the applicant and any interested party who submits written comments on the proposal to the ~~owner's or operator's representative~~ applicant during the public comment period, or who signs in and provides oral comments at the public meeting, shall be deemed to have participated in the proceeding for a permit by rule under this chapter and pursuant to Section 10.1-1197.7 B of the Code of Virginia.

**9VAC15-40-100. Change of ownership, project modifications, termination.**

A. Change of ownership. A permit by rule may be transferred to a new owner or operator if:

1. The current owner or operator notifies the department at least 30 days in advance of the transfer date by submittal of a notice per subdivision 2 of this subsection;

2. The notice shall include a written agreement between the existing and new owner or operator containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

3. The transfer of the permit by rule to the new owner or operator shall be effective on the date specified in the agreement mentioned in subdivision 2 of this subsection.

B. Project modifications. Provided project modifications are in accordance with the requirements of this permit by rule and do not increase the rated capacity of the small wind energy project, the owner or operator of a project authorized under a permit by rule

may modify its design or operation or both by furnishing to the department new certificates prepared by a professional engineer, new documentation required under 9VAC15-40-30, and the appropriate fee in accordance with 9VAC15-40-110. The department shall review the received modification submittal in accordance with the provisions of subsection B of 9VAC15-40-30.

C. Permit by rule termination. The department may terminate the permit by rule whenever the department finds that:

1. The applicant has knowingly or willfully misrepresented or failed to disclose a material fact in any report or certification required under this chapter; or
2. After the department has taken enforcement actions pursuant to 9VAC15-40-140, the owner or operator persistently operates the project in significant violation of the project's mitigation plan.
3. Prior to terminating a permit by rule pursuant to subdivision 1 or 2 of this subsection, the department shall hold an informal fact-finding proceeding pursuant to § 2.2-4019 of the Virginia Administrative Process Act in order to assess whether to continue with termination of the permit by rule or to issue any other appropriate order. If the department determines that it should continue with the termination of the permit by rule, the department shall hold a formal hearing pursuant to § 2.2-4020 of the Virginia Administrative Process Act. Notice of the formal hearing shall be delivered to the owner or operator. Any owner or operator whose permit by rule is terminated by the department shall cease operating his small wind energy project.

775 **9VAC15-40-110. Fees.**

776 A. Purpose. The purpose of this section is to establish schedules and procedures  
777 pertaining to the payment and collection of fees from any applicant seeking a new permit  
778 by rule or a modification to an existing permit by rule for a small wind energy project..

779 B. Permit fee payment and deposit. Fees for permit by rule applications or  
780 modifications shall be paid by the applicant as follows:

781 1. Due date. All permit application fees or modification fees are due on submittal  
782 day of the application or modification package.

783 2. Method of payment. Fees shall be paid by check, draft or postal money order  
784 made payable to "Treasurer of Virginia/DEQ," and shall be sent to the  
785 Department of Environmental Quality, Receipts Control, P.O. Box 10150,  
786 Richmond, VA 23240.

787 3. Incomplete payments. All incomplete payments shall be deemed  
788 nonpayments.

789 4. Late payment. No application or modification submittal will be deemed  
790 complete until the department receives proper payment.

791 C. Fee schedules. Each application for a permit by rule and each application for a  
792 modification of a permit by rule is a separate action and shall be assessed a separate  
793 fee. The amount of the permit application fee is based on the costs associated with the  
794 permitting program required by this chapter. The fee schedules are shown in the  
795 following table:

Type of Action	Fee
Permit by rule application (including first 3 years of operation)	\$16,000

Permit by rule modification (after first three years of operation)	\$5,000
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D. Use of fees. Fees are assessed for the purpose of defraying the department's costs of administering and enforcing the provisions of this chapter including, but not limited to, permit by rule processing, permit by rule modification processing, and inspection and monitoring of small wind energy projects to ensure compliance with this chapter. Fees collected pursuant to this section shall be used for the administrative and enforcement purposes specified and as specified in § 10.1-1197.6 E of the Code of Virginia.

E. Fund. The fees, received by the department in accordance with this chapter, shall be deposited in the Small Renewable Energy Project Fee Fund.

F. Periodic review of fees. Beginning July 1, 2012, and periodically thereafter, the department shall review the schedule of fees established pursuant to this section to ensure that the total fees collected are sufficient to cover 100 percent of the department's direct costs associated with use of the fees.

**9VAC15-40-120. Internet accessible resources.**

This chapter refers to resources to be used by applicants in gathering information to be submitted to the department. These resources are available through the internet; therefore, in order to assist the applicants, the uniform resource locator or internet address is provided for each the references listed in this section.

A. Internet available resources. ~~[check with Deb re whether Tom Smith's and Ray Fernald's technical corrections have been made — to this section or wherever else needed]~~

- 817 1. The Virginia Landmarks Register, Virginia Department of Historic Resources,  
818 2801 Kensington Avenue, Richmond, Virginia. Available at the following internet  
819 address: <http://www.dhr.virginia.gov/register/register.htm>.
- 820 2. Professional Qualifications Standards, the Secretary of the Interior's Standards  
821 and Guidelines for Archeology and Historic Preservation, as amended and  
822 annotated (48 FR 44716-740, September 29, 1983), National Parks Service,  
823 Washington, DC. Available at the following internet address:  
824 [http://www.nps.gov/history/local-law/arch\\_stnds\\_9.htm](http://www.nps.gov/history/local-law/arch_stnds_9.htm).
- 825 3. Invasive alien plant species of Virginia, Virginia Department of Conservation  
826 and Recreation, Division of Natural Heritage, Richmond, Virginia. Available at the  
827 following internet address:  
828 [http://www.dcr.virginia.gov/natural\\_heritage/invspinfo.shtml](http://www.dcr.virginia.gov/natural_heritage/invspinfo.shtml).
- 829 4. ~~[?]~~ The Natural Communities of Virginia, Classification of Ecological  
830 Community Groups, Second Approximation, [Version 2.3201006](#), Virginia  
831 Department of Conservation and Recreation, Division of Natural Heritage,  
832 Richmond, VA. Available at the following internet address:  
833 [http://www.dcr.virginia.gov/natural\\_heritage/ncintro.shtml](http://www.dcr.virginia.gov/natural_heritage/ncintro.shtml).
- 834 5. Virginia Outdoors Plan, 2007, Virginia Department of Conservation and  
835 Recreation, -Richmond, Virginia. Available at the following internet address:  
836 [http://www.dcr.virginia.gov/recreational\\_planning/vop.shtml](http://www.dcr.virginia.gov/recreational_planning/vop.shtml).
- 837 6. ~~[?]~~ Virginia's Comprehensive Wildlife Conservation Strategy, 2005, Virginia  
838 Department of Game and Inland Fisheries, 4010 West Broad Street, Richmond,  
839 Virginia. Available at the following internet address:  
840 <http://www.bewildvirginia.org/wildlifeplan/>.

B. Internet applications.

1. Coastal GEMS application, 2010, Virginia Department of Environmental Quality. Available at the following internet address:  
<http://www.deq.virginia.gov/coastal/coastalgems.html>.

NOTE: This website is maintained by the department Assistance and information may be obtained by contacting Virginia Coastal Zone Management Program, Virginia Department of Environmental Quality, 629 E. Main Street, Richmond, Virginia 23219, (804) 698-4000.

2. [?]—Natural Landscape Assessment, 2010, Virginia Department of Conservation and Recreation. Available at the following internet address: for detailed information on ecological cores go to [http://www.dcr.virginia.gov/natural\\_heritage/vclnavnla.shtml](http://www.dcr.virginia.gov/natural_heritage/vclnavnla.shtml) and maps may be viewed at DCR's Land Conservation Data Explorer Geographic Information System website at <http://www.vaconservedlands.org/gis.aspx>.

NOTE: The website is maintained by DCR. Actual shapefiles and metadata are available for free by contacting a DCR staff person at [vaconslands@dcr.virginia.gov](mailto:vaconslands@dcr.virginia.gov) or DCR, Division of Natural Heritage, 217 Governor Street, Richmond, Virginia 23219, (804)786-7951.

3. Fish and Wildlife Information Service or Wildlife Environmental Review Map Service, 2010, Virginia Department of Game and Inland Fisheries. Available at the following internet address: <http://www.vafwis.org/fwis/>.

NOTE: This website is maintained by DGIF and it does require registration for use. Assistance and information may be obtained by contacting DGIF, Fish and



Wildlife [Information](#) Service, 4010 West Broad Street, Richmond, Virginia 23230,  
(804)367-~~69134000~~.

### Part III

#### Notification and Other Provisions for ~~Smaller~~ Projects of Five (5) Megawatts and Less[???

##### **9VAC15-40-130. Small wind energy projects of ~~less than 5 megawatts and less.~~**

A. The owner or operator of a small wind energy project with a rated capacity equal to or less than 500 kilowatts is not required to submit any notification or certification to the department.

B. The owner or operator of a small wind energy project with a rated capacity ~~greater than~~ between 5010 kilowatts and ~~less than~~ 5 megawatts shall:

1. ~~Notify the department by submitting a certification by the governing body of the locality or localities wherein the project will be located that the project complies with all applicable land use ordinances and applicable local government requirements;~~

2. ~~[TNC suggestion]~~ Submit the desktop surveys described in 9VAC15-40-40 A 1 and; ~~9VAC15-40-40 A 5 a;~~ 9VAC15-40-40 B 1; if the desktop surveys indicate the presence of T&E species within the disturbance zone, or of known historic resources within the disturbance zone and within one-half mile of the boundary of the disturbance zone, then the applicant shall submit a mitigation plan detailing reasonable actions to avoid, minimize, or offset adverse impacts on these resources.; ~~9VAC15-40-40 C 1 a; and 9VAC15-40-40 C 2 a [not sure that this last one is a desktop survey; need to ask DCR; have sent email to Tom Smith]; and~~

886 | [The following provision had consensus support from the Offshore/Coastal RAP,  
887 | [except for one negative vote:  
888 | 3. ~~ForThe owner or operator of such~~ projects located in part or in whole within  
889 | ~~zones a Coastal Avian Protection Zone~~1, 2, 3, 4, 5, 10, 11, 12, or 14 on the Coastal  
890 | ~~Avian Protection Zones map,~~ shall also contribute \$1000.00 per megawatt of rated  
891 | capacity, or partial megawatt thereof, to a fund designated by the department in  
892 | support of scientific research investigating the impacts of projects in Coastal Avian  
893 | Protection Zones on avian resources.]<sup>14</sup>

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<sup>14</sup> With the exception of this last provision, all of the suggested provisions in this draft received unanimous acceptance by the Offshore RAP; that is, no one at the RAP meeting objected to the provision as presented or modified via discussion; everyone either agreed with the provision or "could live with it." DEQ staff was authorized by the director to submit as public comment the suggested provisions where the Offshore RAP reached "general consensus." Some people believe that "consensus" – especially "general consensus" -- does not require unanimity. Rather than debate the definition of "consensus," this provision is presented with the following explanation:

-A RAP member suggested that an additional requirement be set forth in this section of the regulation for very small projects (meaning 5010 kW to 5 MW) located in ~~the~~ the CAPZ. He and other RAP members commented that one or two turbines in these locations might do significant harm to avian resources because the CAPZ are generally known as migratory, staging, and wintering areas of often international importance. RAP members further noted that ~~and~~ several of these very small projects could conceivably exist within a zone. Few if any research studies exist to show the actual post-construction impacts of such very small projects. With the exception of one negative vote, the Offshore RAP agreed that a modest financial contribution should be required for these very small projects in the ~~the~~ CAPZ to support research about avian impacts.

This additional requirement is consistent with the existing approach of defining reduced PBR requirements for very small projects. That is, all projects in this size category must provide notice and local government certification (requirements number one and two on the list of statutory and proposed regulatory application requirements). Because of the critical importance of avian resources in ~~the~~ CAPZ, an addition to the list is suggested for very small projects in those areas. Pursuant to numbers seven and eight on the list of PBR requirements, an applicant may bypass avian field studies and stipulate that existing scientific analysis, as reflected on the CAPZ map, supports a conclusion of likely significant adverse impact. Probably the chief mitigation options (suggested by the RAP for DEQ Guidance) for projects over 5 MW in the CAPZ are financial contributions to research or habitat protection for avian resources. Similarly, ~~this~~ this additional provision requiring a financial contribution for research for very small projects in the CAPZ is a scaled-down version of numbers seven and eight in the full PBR list of requirements. It

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## Part IV

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## Enforcement

### 897 9VAC15-40-140. Enforcement.

898 The department may enforce the provisions of this chapter and any permits by rule  
899 authorized under this chapter in accordance with §§ 10.1-1197.9, 10.1-1197.10, and  
900 10.1-1197.11 of the Code of Virginia. In so doing, the department may:

- 901 1. Issue directives in accordance with the law;
- 902 2. Issue special orders in accordance with the law;
- 903 3. Issue emergency special orders in accordance with the law;
- 904 4. Seek injunction, mandamus or other appropriate remedy as authorized by the law;
- 905 5. Seek civil penalties under the law; or
- 906 6. Seek remedies under the law, or under other laws including the common law.

### 907 DOCUMENTS INCORPORATED BY REFERENCE (9VAC15-40)

908 The Natural Communities of Virginia, Classification of Ecological Community Groups,  
909 Second Approximation, 2006, Virginia Department of Conservation and Recreation,  
910 Division of Natural Heritage, Richmond, VA.

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resembles a “mini-mitigation” requirement in those CAPZ map zones where developers of larger wind projects are allowed to stipulate to likely significant adverse impacts to avian resources and to make a financial contribution as an offset for avian impacts. So, for very small projects in specified CAPZ map zones, an applicant would provide notice, local government certification, and a small financial contribution to help “offset” coastal avian impacts.

It should also be noted for the record that one RAP member did not object to this provision for avian resources in the CAPZ but asserted that analogous protection should also be afforded for historic resources in the CAPZ. He acknowledged that time constraints made consideration of a historic resource provision impracticable at this time.

911 Virginia Outdoors Plan, 2007, Virginia Department of Conservation and Recreation,  
912 Richmond, Virginia.

913 Virginia's Comprehensive Wildlife Conservation Strategy, 2005, Virginia Department  
914 of Game and Inland Fisheries, Richmond, Virginia.

915 Certification Statement:

916 I certify that this regulation is full, true, and correctly dated.

917 \_\_\_\_\_ (Signature of certifying official)

918 Name and title of certifying official: \_\_\_\_\_

919 Name of agency: \_\_\_\_\_

920 Date: \_\_\_\_\_

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922 ~~C:\Documents and Settings\car40554\My Documents\Renewable Energy Regs from Dell~~

923 ~~to DEQ computer 8 15 10\Offshore Issues\Original Wind PBR with Offshore and Coastal~~

924 ~~Additions Aug 17 2010 w CCW Aug 18 edits .DOC~~

925 C:\Documents and Settings\Carol Wampler\My Documents\Orig Wind PBR w

926 Offshore RAP recs & explan cmnts & pub cmnt changes inserted Aug 31 2010.DOC

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